

REMARKS/ARGUMENTS

The above Amendments and these Remarks are in reply to the Office Action mailed March 31, 2003.

In the Office Action, the Examiner rejected claims 1-4, 6-12, 14 and 16-18 and objected to claims 5, 13, and 15. Reconsideration of the rejections is requested.

The figures are objected to under 37 CFR 1.83 (a) for failing to show every feature of the invention described in the claims. Specifically, the Examiner objects to the drawings with respect to the following features of particular dependent claims: the polarizing filter of claim 4, the variations of intensity and polarization of claims 12 and 13, and the varying human body sections of claims 15-18. With regards to this objection, the Examiner is directed towards the second half of 37 CFR 1.83 (a) which states “However, conventional features disclosed in the description and claims, where there detailed illustration is not necessary for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled rectangular box”. Figures 1, 3, and 5 illustrate light sources 5, 10 optionally having varying intensities and polarizations(p.3 l. 26) or a polarizing filter (p. 6 ll. 9-10). Under 37 CFR 1.83 applicants are directed to provide basic graphical illustrations of the light sources, rather than detailed illustrations. With regards to claims 15-18, which are directed towards the detection of particular parts of a the target, Figure 5 illustrates the detection of a portion 80 of the target 20. It is thus submitted, that the figures are acceptable under 37 CFR 1.83 (a).

Claims 15-18 were objected to for lacking proper antecedent basis for “person”. With respect to claims 15-17, these claims, either originally, or through dependencies, recite “a person”. Claim 18 has been amended to depend from claim 16, thus providing antecedent basis.

Claims 1-4, 6-12, 14, and 16-18 are rejected under 35 U.S.C. 102(a) as being anticipated by Leibe et al. Applicants respectfully traverse the rejection. The independent claims disclose:

A system for determining the location of a target, comprising:
a plurality of light sources;
a projection surface with at least two sides, oriented in such a way that the light sources can illuminate one side of the projection surface;
a target located entirely between the light sources and one side of the projection surface, and away from the projection surface; and
an imaging device located on the side of the projection surface opposite the target, the imaging device being configured to detect a shadow from the target on the projection surface caused by individual ones of the light sources .

Leibe discloses a system for imaging objects upon a workbench, where multiple near-infrared light sources are arranged lateral to desk. A camera with a filter that blocks out all visible light is also located near the light sources. Objects placed upon the table reflect infrared light from the infrared sources through the translucent table surface back towards the imaging device.

Leibe does not disclose a target located “away from the light source”. Rather, as indicated in the abstract “objects are recognized and tracked when *placed upon the display surface*”. This limitation is not incidental. Since the system of Leibe depends upon light sources which transmit infrared light through the table, which is then reflected back through the table towards the imaging device, only objects located near the surface of the table will be imaged correctly.

Additionally, Leibe does not disclose “an imaging device located on the side of the projection surface opposite the target, the imaging device being configured to detect a shadow from the target on the projection surface caused by individual ones of the light sources”. The imaging device in Leibe is not

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located on the side of the desk opposite the target. *Rather it sits to the side, and receives reflected IR from a mirror located under the desk* (see figure 3). Thus, Applicants submit that Leibe does not disclose all of the features of the claimed invention and request that he withdraw his rejection. The references cited by the Examiner but not relied upon have been reviewed, but are not believed to render the claims unpatentable, either singly or in combination.

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent. Enclosed is a PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. § 1.136 for extending the time to respond by one month. The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

Date: July 30, 2003 By: 
Bryon T. Wasserman
Reg. No. 48,404

FLIESLER DUBB MEYER & LOVEJOY LLP
Four Embarcadero Center, Fourth Floor
San Francisco, California 94111-4156
Telephone: (415) 362-3800

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Appendix to the Drawings:

Enclosed are three sheets of formal drawings for the above-identified patent application as required by the Office Action dated March 31, 2003.

Subject to the Examiner's approval, please substitute the enclosed drawings for the drawings previously submitted.

Attachment: 3 Replacement Sheets